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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/784,224

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EXAMINER

MIA, HASSEN A

ART UNIT

PAPER NUMBER

2609

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DELIVERY MODE

06/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/784,224

Applicant(s)

ORR ET AL.

Examiner

Hassen A. Mia

Art Unit

2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 11/10/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 6 and 7** are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Capon et al. US 6,963,641 (hereafter Capon).

Regarding **claim 1**, “attenuation arrangement” reads on Capon fig. 1, element 12 “wherein an attenuator is inserted between a remotely located ADSL line termination unit” reads on Capon fig. 1, modem 4 and “the line” reads on Capon fig. 1, element 6, “said attenuation arrangement being for the purpose of reducing the mismatch of downstream power level of said ADSL LT unit and downstream power level of other ADSL signals sharing the same cable bundle but fed from a more distant point” reads on Capon col. 4, line 16 – cl. 4, Ln. 26.

Regarding **claim 6**, “attenuation arrangement as in claim 1, which is integrated with an ADSL LT unit” reads on Capon a modem 2, ADS LT 6, the attenuation device 12 and an ADSL modem 4 are integrated figure 1.

Regarding **claim 7**, an attenuation arrangement as in claim 1, which is “co-located with an ADSL LT unit” reads on Capon ADSL LT which is co-located with an ADSL LT unit” (see figure 3).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Capon in view of Dinwiddie et al. US 6,481,013. (hereafter Dinwiddie)

**Regarding Claims 2**, Capone does not disclose that, "the attenuator has a sloped attenuation versus frequency characteristic to approximate the characteristic of actual telephone lines." An attenuator having a sloped attenuation characteristics of actual telephone lines" reads on the slop equalization circuitry 76 of Dinwiddie, which is used to extend the useable circuit bandwidth col. 6 line. 29 – line. 51.

It would have been obvious to one of the ordinary skill in the art at the time of invention for the attenuator of Capon to have sloped attenuation versus frequency characteristic as suggested by Dinwiddie to extend the useable circuit band width by providing a substantially constant 15 dB signal strength over a frequency range up to 600 MHz. (col. 6 line. 29 – line. 51).

**Claims 3**, rejected under 35 U.S.C. 103(a) as being unpatentable over Capon in view of Foley US 10/117,379. (hereafter Foley)

Art Unit: 2609

**Regarding claim 3**, Capone does not disclose, "the attenuator has a flat characteristic". An attenuator having a flat characteristic" reads on Foley a flat attenuator and constant group delay throughout the ADSL pass band, Paragraph 0083.

It would have been obvious to one of the ordinary skill in the art at the time of invention for the attenuator of Capon to have a flat attenuation characteristic as suggested by Foley because to move the cutoff frequency up to 2.5MHz and substantially decrease the value of the inductive element in the filter. This is beneficial because smaller inductors cost less and have higher self-resonance frequency (Paragraph 0083).

**Regarding claim 4**, "wherein the attenuator consists of a capacitive coupling part and an attenuator part", reads on Capon the attenuation device contains capacitive elements that block low frequency telephone signals and prevent them from being attenuated (cl. 2, ln. 41 - 44).

**Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Capon and further in view of Dinwiddie as applied in claim 4 above, and further in view of Leete US 2004/0240131 (hereafter Leete).

Capon and Dinwiddie disclose the attenuation arrangement of claim 4 but do not disclose, "a protection part located between said capacitive coupling part said and attenuation part". It is noted that the capacitor and attenuation part of Capon and Dinwiddie are circuit devices. Leete discloses a protection part (electrostatic protection circuit of Paragraph 0008).

Art Unit: 2609

It would have been obvious to modify the combination of Capon and Dinwiddie by including a protection part located between the circuit devices of Capon and Dinwiddie, which are the attenuation part of Capon and capacitive coupling part of Capon, as suggested by Leete to "prevent damage caused by electrostatic discharge " between circuit devices (Paragraph 0008).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Palm US 6,917,647. Controlling power by using flat and sloped attenuation.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dodds et al. US 2002/0031113, teaches, fixed gain (unity) for both downstream and upstream paths.


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kerpez. US 2003/0108191, teaches deployment of RT-based ADSL to make it compatible with CO-based ADSL uses sloped power back-off.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassen A. Mia <sup>AM</sup> whose telephone number is 571-272-9749. The examiner can normally be reached on M-F 7:30AM - 5:00PM EST alt. Friday off.

Art Unit: 2609

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Pendleton can be reached on 571-272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
BRIAN TYRONE PENDLETON  
PRIMARY EXAMINER

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